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09/651,792	08/30/2000	Hongbin Ji	Ji 4-1-26	2079

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HARNES, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER

PHILPOTT, JUSTIN M

ART UNIT PAPER NUMBER

2665

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/651,792

Applicant(s)

JI ET AL.

Examiner

Justin M. Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) 14-38 and 53-79 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 39-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed February 11, 2005 have been fully considered but they are not persuasive.

Specifically, applicant argues (pages 10-11) that Yin does not teach the newly added claim limitation of assigning different overbooking factors to each service class. However, this argument is not persuasive. Specifically, as detailed in the following action, Yin teaches, “[d]ifferent traffic parameters are used to determine A(i) depending on the type of service class” (col. 6, lines 47-48), “different service classes may use different traffic parameters” (col. 8, lines 14-15), and even more specifically “*each service class may have a different measured traffic rate*” (emphasis added) (col. 8, lines 16-17), wherein the overbooking factor, $f(i)$, corresponds to A(i) (see col. 7, lines 25-30). Thus, since each service class may have a different traffic rate, which corresponds to different traffic parameters determining A(i) for each service class, Yin clearly teaches each service class may be assigned a different overbooking factor. Accordingly, applicant's argument is not persuasive.

Still further, Yin specifically teaches that the overbooking factor (allocation factor, $f(i)$) for each class may be configured to a specific value by the network administrator in order to have a default value (col. 11, lines 6-9). Even further, Yin teaches a preferred embodiment wherein of the four overbooking factors, $f(1)$ to $f(4)$, each overbooking factor that is assigned a value as an example has a different value. For example, Yin specifically indicates $f(1)$ may preferably be assigned 1.0 (col. 8, line 48); $f(2)$ may preferably be assigned 1.2 (col. 8, lines 65-

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66); and/or either of f(3) or f(4) may be preferably assigned 0.8 (col. 11, lines 8-9 regarding f(i)).

Finally, considering Yin in its entirety, Yin clearly anticipates the network administrator being able to select default values which are unique to each overbooking factor (e.g., see col. 6, lines 43-60; col. 7, lines 18-45; col. 8, lines 14-20; col. 8, lines 42-50; col. 9, lines 31-40; col. 10, lines 38-42; and col. 11, lines 4-9). Thus, for these additional reasons, applicant's argument is also not persuasive.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-12, 39-50 and 52 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 5,982,748 to Yin et al.

Regarding claim 1, Yin teaches a method for controlling call admission to a communication system (e.g., see abstract) comprising: assigning a respective overbooking factor (e.g., allocation factor, f(i), see col. 7, lines 18-60) to each of a plurality of service classes (e.g., i classes, see also Table 4 – Service Classes) such that each service class is assigned a different overbooking factor (e.g., see col. 6, lines 43-60 as well as col. 7, lines 18-45; col. 8, lines 14-20; col. 8, lines 42-50; col. 9, lines 31-40; col. 10, lines 38-42; and col. 11, lines 4-9); determining an effective bandwidth (e.g., A(i)) for each class based in part on the respective assigned overbooking factor (e.g., see col. 7, lines 30-34 regarding A(i) determined by f(i), and see col.

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11, lines 6-7 regarding configuring $f(i)$); determining a value of a free bandwidth in the communication system based in part on the determined effective bandwidth for each service class (e.g., see col. 6, lines 36-50 regarding determining total bandwidth $B(i)$ available for each service class and subscribed bandwidth $A(i)$ for each service class, and see col. 5, lines 61-66 and step 60 of FIG. 3 regarding determining available resources for the service class based on the total resources available, $B(i)$, and the resources already assigned, $A(i)$); and admitting or rejecting the call based on the determined value for the free bandwidth (e.g., see col. 3, lines 20-35, and also col. 6, lines 8-9).

Regarding claim 39, Yin teaches the method discussed above regarding claim 1, and further, teaches an apparatus for performing the method, comprising: a programmed processor (e.g., Connection Admission Controller 10, see FIG. 1) coupled to a multiplexer/demultiplexer (e.g., selector 28, see col. 4, line 29 – col. 5, line 7) comprised in an access terminal of the communications system (e.g., see col. 4, lines 29-34 regarding the device comprising a node, router, switch, or other network device directing various data flows across a port).

Regarding claims 2 and 40, Yin teaches the step of determining a free bandwidth further comprises determining a maximum bandwidth at a port in the communication system (e.g., determining total available bandwidth $B(i)$ for each class, see col. 6, lines 36-42, wherein the sum of all $B(i)$ inherently yields the maximum bandwidth B); and subtracting at least a portion of the effective bandwidth (e.g., $A(i)$) for each class from the maximum bandwidth (e.g., see col. 5, lines 61-66 and step 60 of FIG. 3, wherein determining available resources inherently comprises subtracting assigned bandwidth $A(i)$ from available bandwidth $B(i)$).

Regarding claims 3 and 41, Yin teaches the step of subtracting further comprises dividing the effective bandwidth (e.g., $A(i)$) for each class by its respective assigned overbooking factor (e.g., $f(i)$) to produce a result (e.g., $B(i)$, see col. 7, lines 25-30 wherein upon $f(i)$ and $A(i)$ being known, $B(i)$ is determined according to the equation $B(i)=A(i)/f(i)$); and subtracting the result from the maximum bandwidth (e.g., the combined results $B(i)$ yield B , see Table 2 in col. 4 and Table 4 in col. 8, and thus, each $B(i)$ inherently reduce the overall maximum bandwidth B by the amount of $B(i)$).

Regarding claims 4, 5, 42 and 43, Yin teaches the step of admitting or rejecting further comprises admitting the call if the free bandwidth is greater than zero and rejecting the call if the free bandwidth is less than zero (e.g., see col. 5, line 61 – col. 6, line 35 regarding accepting or rejecting based upon adequate resources being available, inherently corresponding to bandwidth, and wherein a value of zero is inherently used for determining admitting/rejecting situations involving full booked classes, see col. 7, lines 36).

Regarding claims 6 and 44, Yin teaches the plurality of service classes includes constant bit rates (e.g., Constant Bit Rate, see Table 1 in col. 3).

Regarding claims 7-9 and 45-47, Yin teaches the plurality of service classes includes a real time variable bit class and a non-real time variable bit class (e.g., real-time Variable Bit Rate and non-real-time Variable Bit Rate, see Table 1 in col. 3).

Regarding claims 10, 11, 48 and 49, Yin also teaches a default overbooking factor of 1 indicates no over-booking (e.g., see col. 7, lines 35-45).

Regarding claims 12 and 50, Yin teaches the communication system is an ATM network (e.g., see col. 12, lines 42-43).

Regarding claim 52, Yin teaches a plurality of access terminals may be chained whereby each access terminal performs the controlling call admission method independently of the other (e.g., see col. 5, lines 45-50 regarding the method being executed by more than one node or network device coupled in the system and each comprising a connection admission controller).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin in view of U.S. Patent No. 6,608,815 to Huang et al.

Regarding claims 13 and 51, Yin teaches the method discussed above regarding claims 1 and 39, however may not specifically disclose the system is an IP network.

Huang also teaches a method and apparatus for connection admission control, and further, teaches application for both ATM networks and IP networks (e.g., see col. 3, lines 36-50). The teachings of Huang provide improved connection admission control for a plurality of applications including ATM, IP and MPLS architecture with minimum hardware implementation (e.g., see col. 3, lines 36-50). Thus, at the time of the invention it would have been obvious to apply the connection admission control teachings of Huang to the connection admission control method and apparatus of Yin in order to provide improved connection admission control for a

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plurality of applications including ATM, IP and MPLS architecture with minimum hardware implementation (e.g., see col. 3, lines 36-50).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

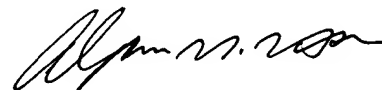
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin M Philpott



**ALPUS H. HSU
PRIMARY EXAMINER**